EVERNORTH
PURITY FOR THE PEOPLE

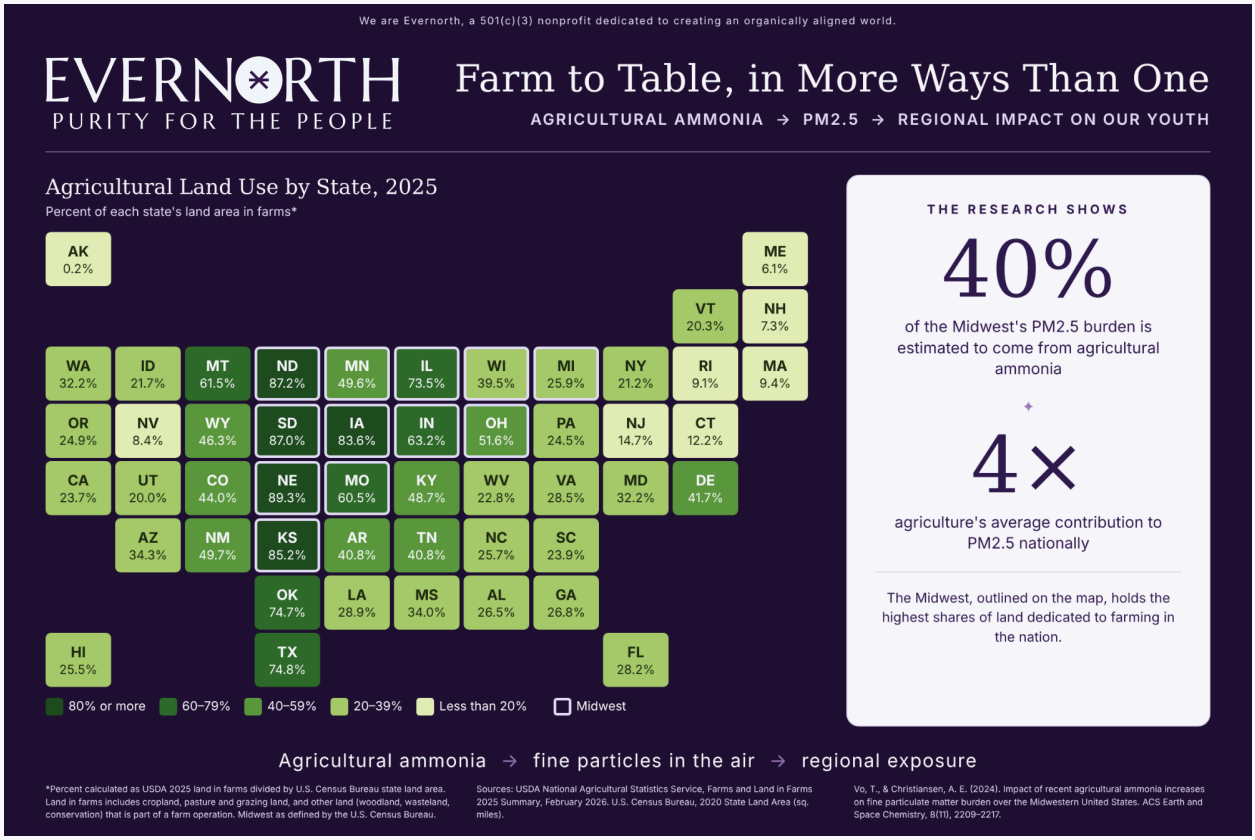
Farm to Table, in More Ways Than One

EVERNORTH FOUNDATION · TOXICITY AWARENESS · VISUAL DATA & RESOURCES

By Victoria Vera, Founder, Evernorth Foundation · Published August 2026 · Updated November 2026

SYNOPSIS

- Agricultural ammonia, released from fertilizer and livestock, forms ammonium nitrate, one of the fine particles known as PM2.5.
- PM2.5 slips past most of the body's natural defenses, reaching the lungs and even the bloodstream.
- An estimated 40% of the Midwest's PM2.5 burden comes from agricultural ammonia, about four times agriculture's average contribution nationally.
- Atmospheric ammonia across the Midwest rose 43% between 2007 and 2019, and it remains unregulated at the federal level.
- Exposure is regional, reaching families who live far from any farm, and children are among the most vulnerable.



Across the American Midwest, the air carries a pollutant few people know exists. Agricultural ammonia, released from fertilizer and livestock, rises into the atmosphere and forms ammonium nitrate, one of the fine particles known as PM2.5.

These particles are particularly concerning because they stay under the radar. The human body has little protection against them. They freely bypass our natural defenses and enter the lungs and even the bloodstream.

Not only do they travel freely into our bodies, but they also traverse an entire region with ease, carried on the wind. Agricultural ammonia contributes an estimated 40% of the Midwest's PM2.5 burden, roughly four times agriculture's average contribution nationally, and atmospheric ammonia in the region rose 43% between 2007 and 2019.

The map shows how much of each state's land is farmed. In nine of the twelve Midwestern states, farmland covers more than half of all land, which is why a family living far from any field may still breathe what the region releases.

Children are among the most vulnerable. In a study of more than 8,500 children across the United States, ammonium nitrate showed the study's strongest link to poorer learning and memory, and among autistic children, greater PM2.5 exposure has been linked to more severe symptoms. Agricultural ammonia remains unregulated at the federal level.

How can a family live carefully and organically and still breathe pollution produced far from home? Who is accountable for a pollutant that crosses every property line? Nothing can change until it is first understood.

Sources: Vo & Christiansen (2024); Sukumaran et al. (2024); Geng et al. (2019); Jung et al. (2022); McGuinn et al. (2022); USDA NASS (2026).

About the author. Victoria Vera is the founder of Evernorth Foundation and a research analyst and area expert in how food, products, materials, and environmental contaminants impact human wellness.

Suggested citation: Vera, V. (2026). Farm to Table, in More Ways Than One. Evernorth Foundation. evernorthfoundation.org